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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,119	11/11/2003	Ralph C. Mays	005804.00006A	6232
28827	7590	04/26/2005		EXAMINER
GABLE & GOTWALS				WILSON, JOHN J
100 WEST FIFTH STREET, 10TH FLOOR				
TULSA, OK 74103			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/706,119	MAYS, RALPH C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John J. Wilson	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 16 March 2005.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 26-29,31,32,34,35,37,38 and 42-49 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 26-29,31,32,34,35,37,38 and 42-49 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_.  
 4)  Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5)  Notice of Informal Patent Application (PTO-152)  
 6)  Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claims 31, 34 and 47 are rejected under 35 U.S.C. 101 because the claimed invention is not capable of functioning as disclosed and claimed. Sonic energy transmitted through air is not capable of vibrating the shaft with sufficient energy to accomplish the stated function.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 31, 34 and 47 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), how to make and use the invention. It is not sufficiently disclosed how to send sonic energy through the air in a manner that will vibrate the shaft with sufficient energy to accomplish the disclosed function. How much energy is required? At what distance would the shaft and energy source have to be held in order to operate?

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26, 31, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of the known prior art as disclosed in the present application, pages 3 and 4. Malmin shows an elongated shaft 930, Fig. 30, filler material applied onto the distal end of the shaft, column 10, lines 5-8. The tips in this embodiment are used to apply the sealant using the same principle as those of Fig. 4, column 9, lines 57-65, and the method of Fig. 4 as taught is to pick up the material and insert it into the root canal, column 9, lines 10-14. Malmin further teaches applying energy, column 9, line 61, through column 10, line 2. The option of removing the shaft is taught by Malmin, however, this claimed option implies that there is also an option of not removing the shaft, which Malmin does not show. The prior art as taught by the present disclosure at pages 3 and 4 teaches that it is known to not remove the shaft. It would be obvious to one of ordinary skill in the art to modify Malmin to include not removing the shaft as is shown by the disclosed prior art in order to fill the canal. The energy that propagates through the end of the tool, inherently comprises a beam of energy, and/or, to call it a beam of energy is an obvious matter of choice in terminology to the skilled artisan. The applied sonic energy will inherently vibrate and heat the shaft and therefore will inherently cause a decrease in surface tension. As to claim 32, Malmin shows a shaft, Fig. 10, filler material 10 applied to the shaft and a source of sound energy, Fig. 12. As to claim 34, all of the claimed structure being shown, the

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placement of the elements with respect to each other is an obvious matter of choice in the intended use of the elements.

Claims 27, 28, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of the known prior art as disclosed in the present application, pages 3 and 4 as applied above, and further in view of McSpadden (4353698). The above combination shows the structure as described above, however, does not show a temperature sensor.

McSpadden teaches using a temperature sensor, column 4, lines 2-6. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of a temperature sensor as shown by McSpadden in order to better control the energy supplied to the shaft. The specific location of the sensor is an obvious matter of choice in the location of a known element in order to best sense the temperature at the needed site. As to claim 28, the above combination does not state that the shaft is a metal shaft. McSpadden teaches that it is known to use metal shafts, column 2, lines 57-59. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of metal as shown by McSpadden in order to make use of known materials for delivering energy to the site.

Claims 29, 35 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of the known prior art as disclosed in the present application, pages 3 and 4 as applied above, and further in view of Corvatto (4480996). The above combination does not show using a plastic shaft. Corvatto teaches the use of a plastic shaft 12, column 2, lines 66-68. It would be obvious to one of ordinary skill in the art to modify the above combination to

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include the use of plastic as shown by Corvatto in order to make use of art known materials for supplying energy to an endodontic site. As to claim 35, the above combination does not show the use of laser energy. Corvatto teaches using laser energy, column 3, line 26. It would be obvious to one of ordinary skill in the art to modify the above combination to include using laser energy as shown by Corvatto in order to make use of art known forms of energy supplied to an endodontic site. The energy that propagates through the end of Corvatto is inherently a beam of energy. As to claim 42, Corvatto teaches using electromagnetic energy.

Claims 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of Hatter et al (4176454). Malmin shows an elongated shaft 930, Fig. 30, filler material applied onto the distal end of the shaft, column 10, lines 5-8. Malmin does not show a beam of energy for transmitting through the air. Hatter teaches a source "U" for a beam of energy. It would be obvious to one of ordinary skill in the art to modify Malmin to include the source of energy as shown by Hatter because the elements are separately listed structures that are properly met by a showing of each of the claimed structures. The intended use of these elements together is given no patentable weight.

Claims 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of Levy et al (5346489). Malmin shows an elongated shaft 930, Fig. 30, filler material applied onto the distal end of the shaft, column 10, lines 5-8. Malmin does not show a beam of energy for transmitting through the air. Levy teaches a source 10 for a beam of energy. It would be obvious to one of ordinary skill in the art to modify Malmin to include the source of

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energy as shown by Levy because the elements are separately listed structures that are properly met by a showing of each of the claimed structures. The intended use of these elements together is given no patentable weight.

Claims 43, 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830). Malmin shows an elongated shaft 930, Fig. 30, filler material applied onto the distal end of the shaft, column 10, lines 5-8. The tips in this embodiment are used to apply the sealant using the same principle as those of Fig. 4, column 9, lines 57-65, and the method of Fig. 4 as taught is to pick up the material and insert it into the root canal, column 9, lines 10-14. Malmin further teaches applying energy, column 9, line 61, through column 10, line 2. Malmin also teaches compacting the filler material, column 1, lines 62-68. To use different features from different embodiments of Malmin would have been obvious to one of ordinary skill in the art in order to obtain the desired properties for filling the root canal. As to claim 49, the energy that propagates through the end of the tool, inherently comprises a beam of energy, and/or, to call it a beam of energy is an obvious matter of choice in terminology to the skilled artisan.

Claims 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of McSpadden (4353698). Malmin shows the structure as described above, however, does not show a temperature sensor and control. McSpadden teaches using a temperature sensor and control, column 4, lines 2-6. It would be obvious to one of ordinary skill in the art to modify Malmin to include the use of a temperature sensor and control as shown by McSpadden in order to better control the energy supplied to the shaft.

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Claims 46 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of Corvatto (4480996). Malmin does not show using electromagnetic energy. Corvatto teaches using electromagnetic (laser) energy. It would be obvious to one of ordinary skill in the art to modify Malmin to include electromagnetic energy as shown by Corvatto in order to best fill the root canal.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 26-29, 31, 32, 34, 35, 37, 38 and 42-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,312,261 in view of Malmin (3899830). The '261 claims teach placing a filling material on a shaft and providing heat, however, do not show using sound energy. Malmin teaches using sound energy to heat filling material as described above. It would be obvious to one of ordinary skill in the art to modify the claims of '261 to include the use of sound energy as shown by Malmin in order to make use of art known ways of delivering energy to an endodontic

shaft. The shown structure inherently provides the option to not remove the shaft. The shown energy will inherently vibrate the shaft. The specific type of sound energy used is an obvious matter of choice in known types of energy used in endodontics to the skilled artisan. To call the energy supplied a beam is an obvious matter of choice in terminology to one of ordinary skill in the art.

Claims 26-29, 31, 32, 34, 35, 37, 38 and 42-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6,644,972 in view of Malmin (3899830). The '972 claims teach placing a filling material on a shaft and providing heat, however, do not show using sound energy. Malmin teaches using sound energy to heat filling material as described above. It would be obvious to one of ordinary skill in the art to modify the claims of '972 to include the use of sound energy as shown by Malmin in order to make use of art known ways of delivering energy to an endodontic shaft. The shown structure inherently provides the option to not remove the shaft. The shown energy will inherently vibrate the shaft. The specific type of sound energy used is an obvious matter of choice in known types of energy used in endodontics to the skilled artisan. To call the energy supplied a beam is an obvious matter of choice in terminology to one of ordinary skill in the art.

#### *Terminal Disclaimer*

The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because:

The person who has signed the disclaimer has not stated the extent of his/her interest, or the business entity's interest, in the application/patent. See 37 CFR 1.321(b)(3).

Even if an authorized agent is signing for the entity, the extent of interest must be stated.

***Response to Arguments***

Applicant's arguments filed March 16, 2005 have been fully considered but they are not persuasive. The terminology "beam" has not been claimed or limited to mean energy traveling through air or space only, and therefore, the above prior art is held to meet the claim language. With respect to the filed Terminal Disclaimer, see above, the extent of interest must be stated.

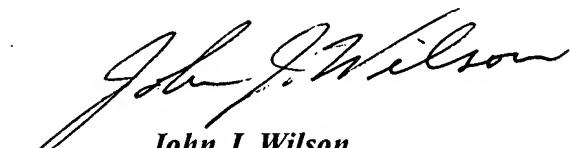
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Wilson whose telephone number is 571-272-4722). The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver, can be reached at 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



*John J. Wilson*  
John J. Wilson  
Primary Examiner  
Art Unit 3732

jjw  
April 23, 2005